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CONDUCTING A SAFETY CULTURE SURVEY

Best Practices for Evaluating Your Safety Culture

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Introduction

This document, developed by the National Business Aviation Association (NBAA) Safety Committee, provides a concise set of recommended best practices for initiating and completing a safety culture survey. It is not intended to be an all-inclusive “how to,” but rather a high-level road map to assist in initiating an employee safety culture survey and obtaining meaningful information.

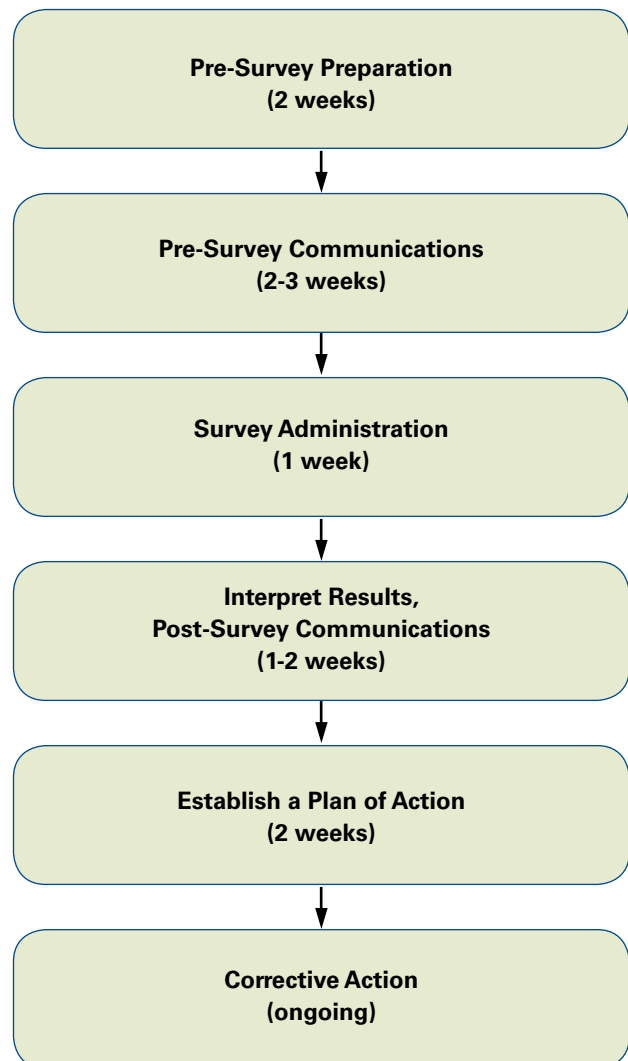
Culture surveys have also been referred to as “climate surveys.” The term “climate” is used to indicate that cultures can change over time, and the survey itself only provides a snapshot of current employee perceptions. For this reason, it is recommended that the completion of a periodic safety perception survey be built into your safety management system (SMS) at a minimum of three-year intervals.

This survey tool can be used to help gauge how well your company or department culture supports a positive safety culture. A best practice in safety management and an element of the IS-BAO audit protocols, developing and maintaining a positive safety culture is an integral part of any SMS.

A positive safety culture is evident in an organization when all levels of the staff are committed to a set of core values that balances safety and production. This is demonstrated by a shared belief that all individuals are responsible for making safe choices. Individual decisions/choices that are safety-biased are accepted and viewed positively. The culture also accepts that allocating responsibility for certain behaviors that were human error or risk-based will always be managed through a just process and viewed as organizational learning tools to assist in performance improvement.

Process Flow

The process of conducting a safety culture survey should take approximately eight to 10 weeks. The flow chart below provides a summary of the process timeline.





Why Conduct a Safety Culture Survey?

There are many reasons why completing a safety culture survey of your employees makes good risk management sense. Managing safety often means looking at lagging and leading safety indicators to evaluate safety performance and predict possible future emerging risks. Lagging indicators are obvious and include benchmarks such as employee injury rates and aircraft-related flight risks such as ground damages, traffic collision avoidance system (TCAS) resolution advisory (RA) events, or maintenance-related error escapes over a period of time.

A safety perception survey can act as a leading indicator (proactive tool) to predict future outcomes or signal possible future adverse events. A confidential safety culture survey that shows employees do not feel safe at work is a leading indicator that the safety process needs to be adjusted or action needs to be taken to mitigate possible risks that can come from the work environment or organizational culture.

Another important reason to conduct a safety culture survey is to help bridge the gap between perception and reality. What do your employees really think? Are you on the same page when it comes to managing risk? Are you aware of any gaps in the James Reason Swiss cheese model? Other benefits of completing a safety culture survey include:

- Demonstrating a collaborative approach to risk management
- Raising the profile of safety management
- Supplementing your SMS safety monitoring process

- Stimulating discussion about safety
- Promoting a proactive safety process
- Using a continuous safety improvement tool
- Helping to set strategic and tactical safety improvement objectives

Survey Limitations

A safety culture survey has limitations much like aircraft performance limitations. A well planned and delivered survey will provide you with insights into employee perceptions of safety but not always answer the question of why those perceptions exist. For this reason, you should be prepared after the data analysis to dig further into the results to better understand what may be driving employee perceptions. This can be accomplished by conducting small focus group meetings or simple one-on-one sessions.

Overcoming potential employee resistance to a survey can be a limitation to accomplishing a successful survey, as well. Generally, most employees will welcome the opportunity to express their views about the effectiveness of the company SMS and management systems. However, you may find a minority of employees who are be resistant to the survey for some of the following reasons:

- They are required to complete the survey on their own time
- They are suspicious of intentions behind the survey
- The survey may be seen as a waste of time



- Previous surveys did not result in any remedial action or safety improvements

Any potential resistance can be overcome by exploring the following types of actions:

- Allowing employees to participate in the design and execution of the survey
- Providing incentives to complete the survey based on a target response rate that will benefit a selected charitable organization
- Using external resources to facilitate the survey outside of the company or department to help maintain confidentiality

Pre-survey Communications

Prior to conducting an employee safety culture survey, it is important to set the stage well before the survey is issued. This will help to enlist employee buy-in and provide a basic understanding of why the survey is being offered. People will be more willing to participate if they know what the objectives are, that the survey is endorsed by senior management, and that the results will be shared. Several different communications should be issued at varied time intervals leading up to the actual survey being issued.

It is important to realize that the survey may increase people's expectation for change and is likely to identify areas that may need improvement. This will require that findings be prioritized and action plans developed and completed. All

of this should be communicated up front to employees, including how the results will be communicated later as well as any possible future corrective action plans. Initial survey communications to the target audience should be accomplished several weeks before the survey is issued. Several methods that can assist in the initial communications are:

- Notification in the company safety newsletter or other communications format
- Discussions at company safety meetings and training sessions
- Written notices provided in break areas
- A description of how the survey will be kept confidential and how anonymity will be maintained
- Informing employees that participation is voluntary

Survey Administration

An initial consideration for completing the survey should be timing. Avoid holidays or other periods when the organization may be distracted, such as during major organizational changes or times when other surveys may be planned. Decide on a timetable and how the survey will be administered. Allow time for individuals to work within or around their schedules to complete the survey so that the maximum number of responses can be obtained. This may require several days or weeks. In addition, a survey administrator should be identified to allow participants to

ask questions if any clarification is needed. As a part of the survey or prior to the survey, include a note or letter issued by the senior executive that endorses the survey and places emphasis on the anonymity of the survey.

For a small department, a simple paper and pen survey may work fine. However, for a larger or more complex department with a dispersed workforce, an online survey administration tool or an outside vendor that offers a culture survey tool may better meet your needs. Online tools and third-party vendor services will normally provide built-in analytics and the ability to export to excel spreadsheets for further analysis.

A key consideration in obtaining honest feedback and a representative sampling of the workforce is to verify confidentiality. People will be unwilling to participate in the survey if they believe they can be identified. You will need to make every effort to ensure anonymity of each individual who participates in the survey. This may require the use of an outside vendor, or possibly another department in your company that is not in the management chain of command, to collect and collate the data.

The types of questions to ask that can help survey your safety culture can be derived from many sources or developed in-house using a safety team collaboration format. One option is to select a survey that meets your needs and can be administered consistently to measure future changes in perception. NBAA has provided a suggested set of questions that can act as a safety culture measurement tool. Allowing space in the survey for the participant to write in comments or observations in response to open-ended questions is another helpful way to gather additional insights.

The length of the survey is also an important consideration. The average time to complete the survey should not exceed 25 minutes. This equates to approximately 100 or fewer statements for an individual to respond to during the survey.

It is recommended that all employees be offered the opportunity to voluntarily participate in the survey rather than performing selected group sampling. During the survey, it

is also helpful to provide frequent reminders to the targeted participants about the importance of the survey along with participation metrics to help maintain momentum. A minimum expected returned sample size should be predicated on the size of the department. For a smaller department (10 to 20 employees), a higher percentage of participation should be achieved, such as 80 to 100 percent. For larger departments, a minimum of 33 percent should be strived for, with representation from all department disciplines and management. Experience has shown that when the survey is conducted online via the company intranet or other sources, the response rate can be significantly higher.

The survey should include instructions on how to complete the survey and what to do with it once it is completed. Providing an example question/statement with the scoring format is also helpful. In addition, brief instructions on how to think appropriately about answering the questions should be provided; for example, "Answer the question only from your perspective or base of knowledge, not what you think others may believe."

Interpreting the Results

If the survey is reviewed by a third party or an in-house administrator, it is important to initially screen all comments. The survey administrator should review all survey responses to redact any individual names or identifiable situations to maintain confidentiality before the survey data is released for review. The scores from a survey that uses a standard Likert scale of 1 to 5 can be entered into a spreadsheet for analysis. A typical data analysis will look for scores based on the average or mean that references either each question or a grouping of questions in a category such as "management". More sophisticated surveys often look at question reliability based on questions that compare answers between groupings of similar questions. However, for most basic surveys, a simple read of the scores placed into a table or graph will provide the user with a good indication of items that scored strong to weak, as demonstrated below.

Example of Frequency Table

Question	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
I have the protective equipment that I need to work safely.	0%	1%	10%	60%	25%
The equipment in my work area is unsafe. [<i>Note reversed question.</i>]	17%	44%	9%	8%	1%
The equipment in my work area is well guarded.	0%	2%	20%	56%	10%



Additionally, color coding can provide a good visual guide for interpreting the findings that correspond with each survey section or item.

Mean Score	Meaning
5.0	Very positive response
3.5 - 4.9	Room for improvement
1.0 - 3.4	Considerable room for Improvement

Establishing a Plan of Action

Analysis of the data should be completed within a reasonable time period after the survey is closed. Information about the raw data observations should be provided to employees as soon as possible to recognize and reinforce the value placed on the survey and on their participation in it.

Establishing a plan of action will depend on the nature of the feedback provided. Prior to developing a plan of action for any possible improvements, additional study may be required to determine why employees responded to questions in a particular way. This can be an important step to help ensure that corrective action plans are credible and viable.

Information derived from a safety culture survey can usually be divided into two segments – short-term, tactical interventions and longer-term, strategic initiatives. Evaluating corrective action plans be done using many different types of platforms, such as formal and collaborative-based SMS continuous safety improvement teams, or informal leadership processes. The key is to use the survey data to pinpoint what is working well and what may need improvement, and to set down plans for making those improvements.

Setting targets for improvement often involves pinpointing performance improvement targets. The best way to do this is to set “SMART” goals based on the data analysis.

- ✓ **Specific** – Clearly defined
- ✓ **Measurable** – So that performance can be monitored
- ✓ **Agreed** – With those responsible and accountable
- ✓ **Realistic** – Achievable and practical
- ✓ **Timely** – Set deadlines for milestones or achievement

For additional information on problem solving tools, a web search of topics such as quality improvement, continuous improvement tools, or team-based problem solving will provide a wide variety of resources.

Follow-Up Communications

Providing employees with follow-up information regarding the safety culture survey is a key action item. This is particularly important if you plan to conduct future surveys, as it will help to demonstrate the value of participants’ time. The information provided should be as transparent and open as possible and should clearly identify any deficiencies that need to be addressed.

Immediately following the survey, a notice from senior leadership should be issued thanking everyone for their participation and providing a cursory review of the raw data and next steps in the process. Within a defined time period after the first raw data communication, the actual areas identified for improvement and defined action plans should be communicated to all employees.

Future communications should provide the status of any changes that are underway and the impact of the planned actions. The following types of communication platforms may be of assistance:

- In-house safety news letter
- Cascading the results down line management
- Audio-casts to staff
- Podcasts
- Conference calls
- Face-to-face group de-briefings
- Postings in employee break areas

This overview should provide flight departments with an incentive and the means to conduct a safety culture survey. An effective evaluation of organizational safety climate can help determine whether a flight department is reactive or proactive in its approach to safety, and discussions can begin on how to reach the next level.



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ABOUT THE SAFETY COMMITTEE

The NBAA Safety Committee promotes safety as the cornerstone value of business aviation by identifying significant industry risks and serving as a center of expertise on a wide range of safety matters. To share feedback, contact NBAA at ops@nbaa.org, or review additional safety resources at [**www.nbaa.org/safety**](http://www.nbaa.org/safety).